



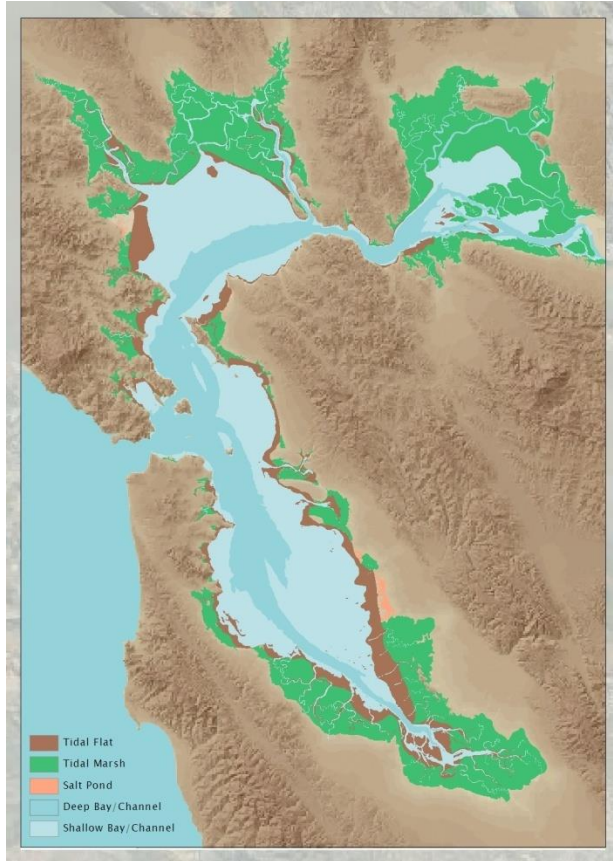
SAN FRANCISCO BAY

RESTORATION AUTHORITY

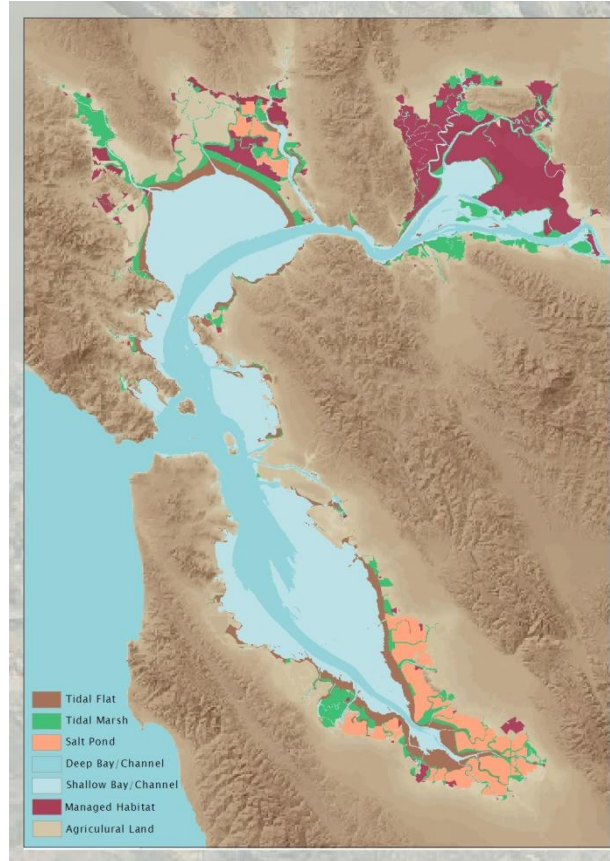
The Restoration Authority & Measure AA: Funding the Restoration of San Francisco Bay

Jessica Davenport, Deputy Program Manager
Presentation to Berkeley City Council
December 7, 2021

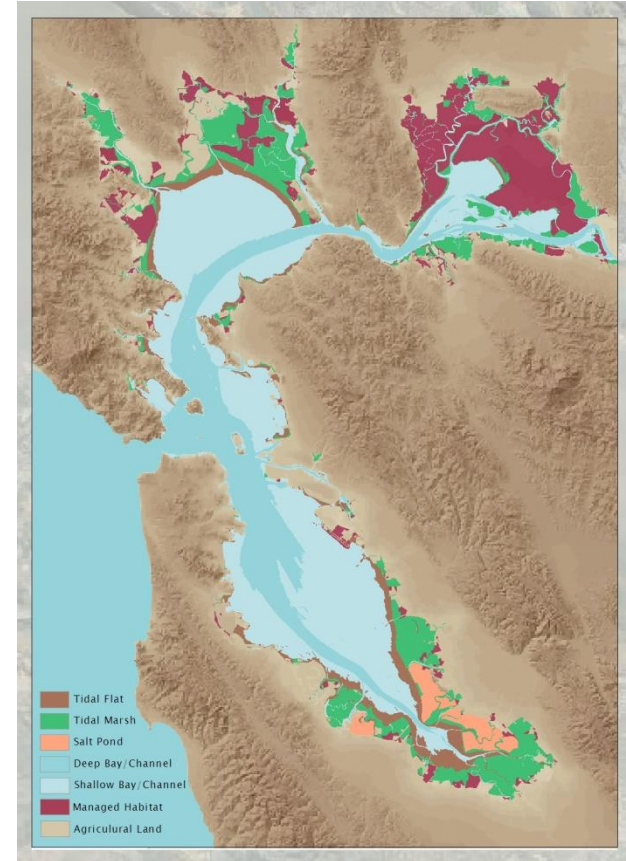
Wetland Loss and Restoration



~1850



~2000



~2030

Goal of 100,000 Acres of Healthy Tidal Marshes



22,000 acres

Additional acquisition/
restoration to reach goal

25,000 acres

Protected/planned for
marsh restoration

13,000 acres

Wetlands restored to
tides since 2000

40,000 acres

Healthy tidal marsh as
of 2000

Why Restore Bay Habitats?

- Home for hundreds of fish and wildlife species
- Filter for pollutants
- Outdoor recreational opportunities
- Flood protection by reducing wave energy



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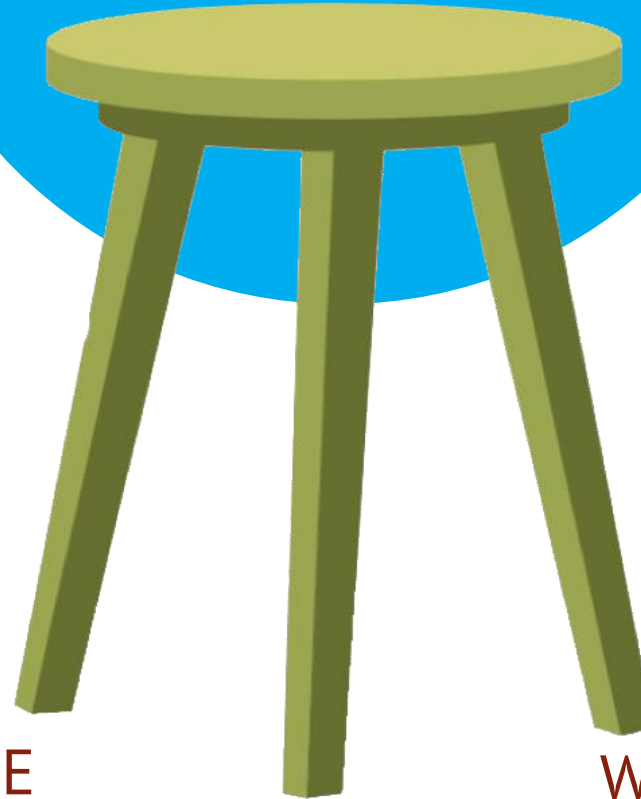
Graphic: Save the Bay

Wetland Restoration Challenges

- **Money**
 - SFBRA funds matched by state and federal sources
- **Permits**
 - Bay Restoration Regulatory Integration Team is helping to speed up process
- **Sediment**
 - Most sites are subsided
 - Not enough sediment to meet the needs of planned restoration projects



HEALTHY AND RESILIENT BAYLANDS



DREDGE
D
SEDIMENT
T

MIGRATION
SPACE

WATERSHED
MANAGEMENT
T

Near
Term

Longer
Term

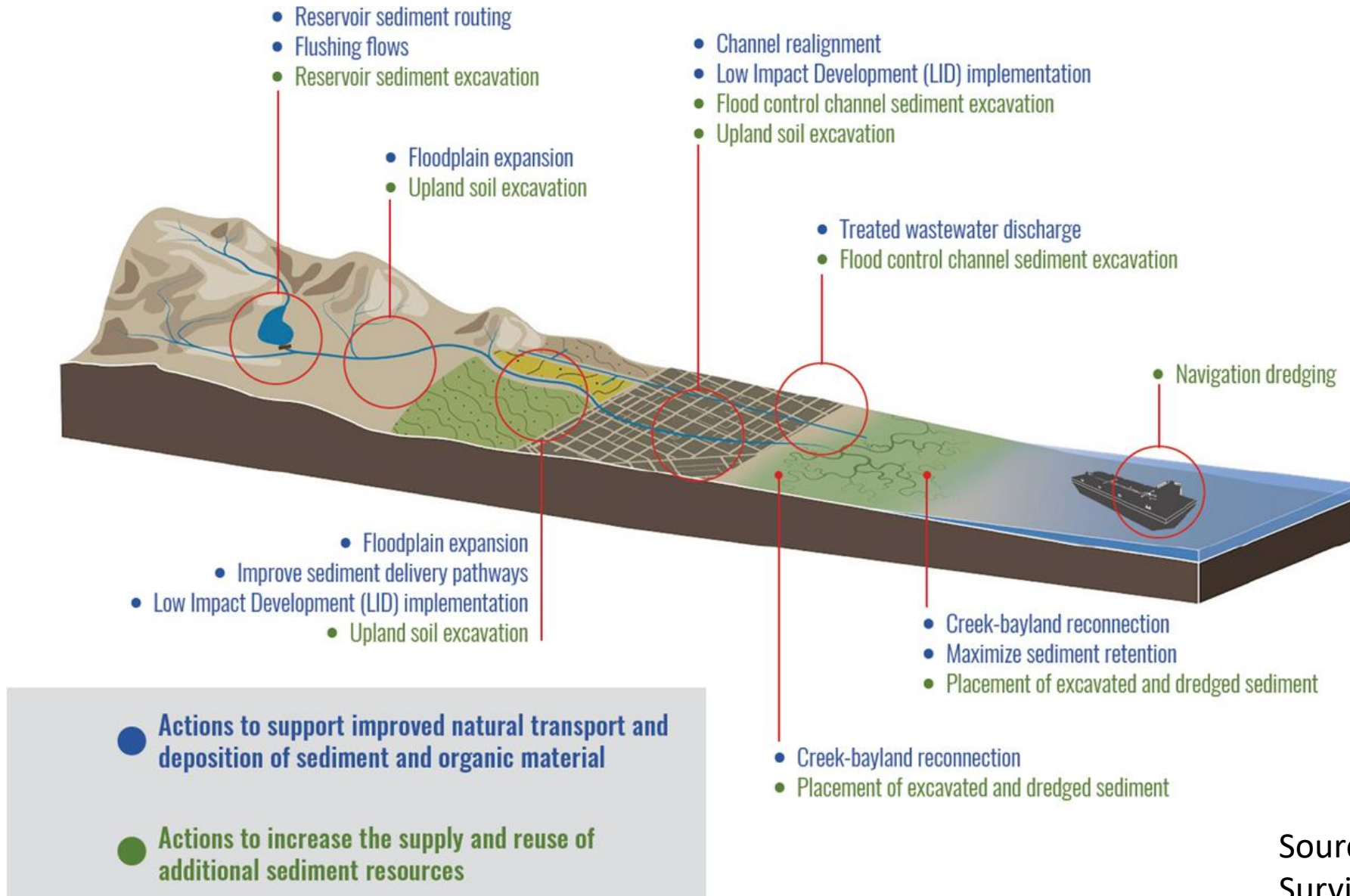
Source: Sediment for Survival, San Francisco Estuary Institute, 2021.

Result



*Sediment
Component*

Timing



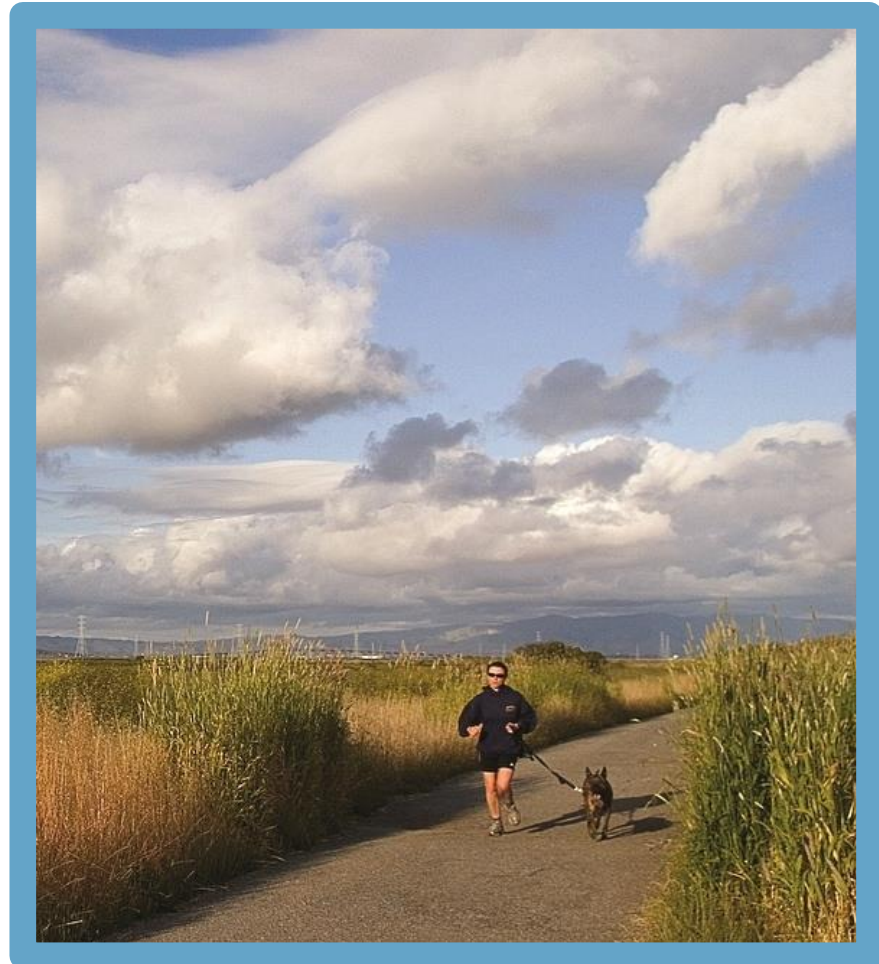
Source: Sediment for Survival, San Francisco Estuary Institute, 2021

What is the SF Bay Restoration Authority?

- The San Francisco Bay Restoration Authority was created by the legislature in 2008 due to the urgent need to restore the Bay.
- It has a Governing Board made up of local elected officials across the region.
- A community-based Advisory Committee helps guide the Authority.
- Measure AA, which the Authority placed on the ballot in June 2016, generates funds to accomplish its mission.
- An Independent Oversight Committee provides an unbiased annual review of the Authority's work.



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Measure AA: San Francisco Bay Clean Water, Pollution Prevention and Habitat Restoration Program

- \$12/year parcel tax generates \$500 million over 20 years for restoration around SF Bay.
- Passed with over 70% support in the 9-county Bay Area.
- Complete restoration is estimated to cost over \$2 billion. Measure AA funds will leverage state and federal funds.

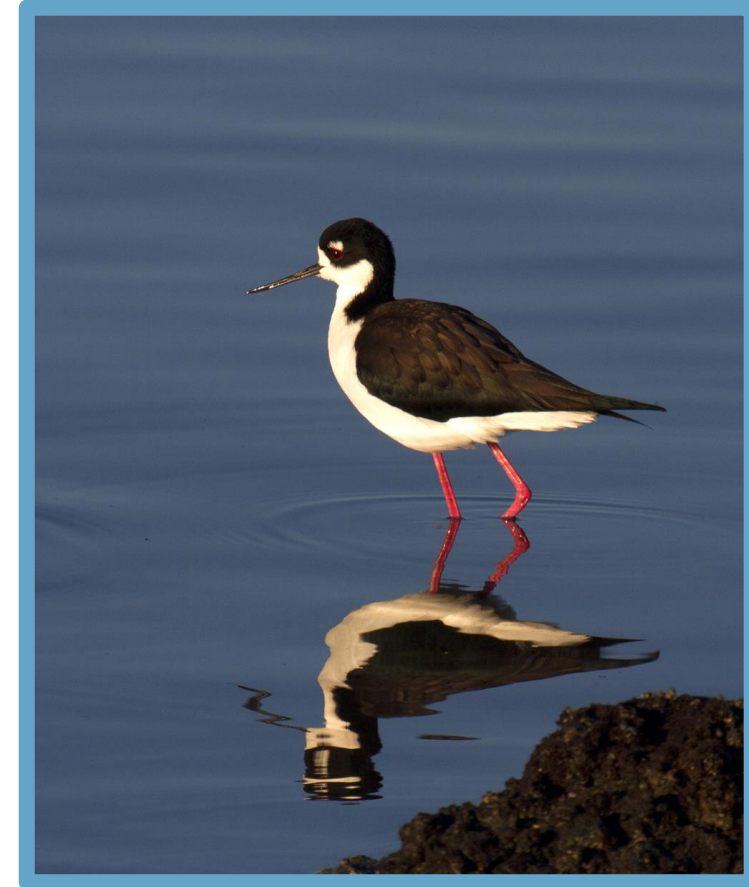


Photo: Rick Lewis

SF Bay Restoration Authority Act Eligibility

The Restoration Authority can fund:

1. **Habitat projects** that will restore, protect, or enhance tidal wetlands, managed ponds, or natural habitats along the shoreline.
2. **Flood management features** that are part of a habitat project.
3. **Public access or recreational amenities** that are part of a habitat project.

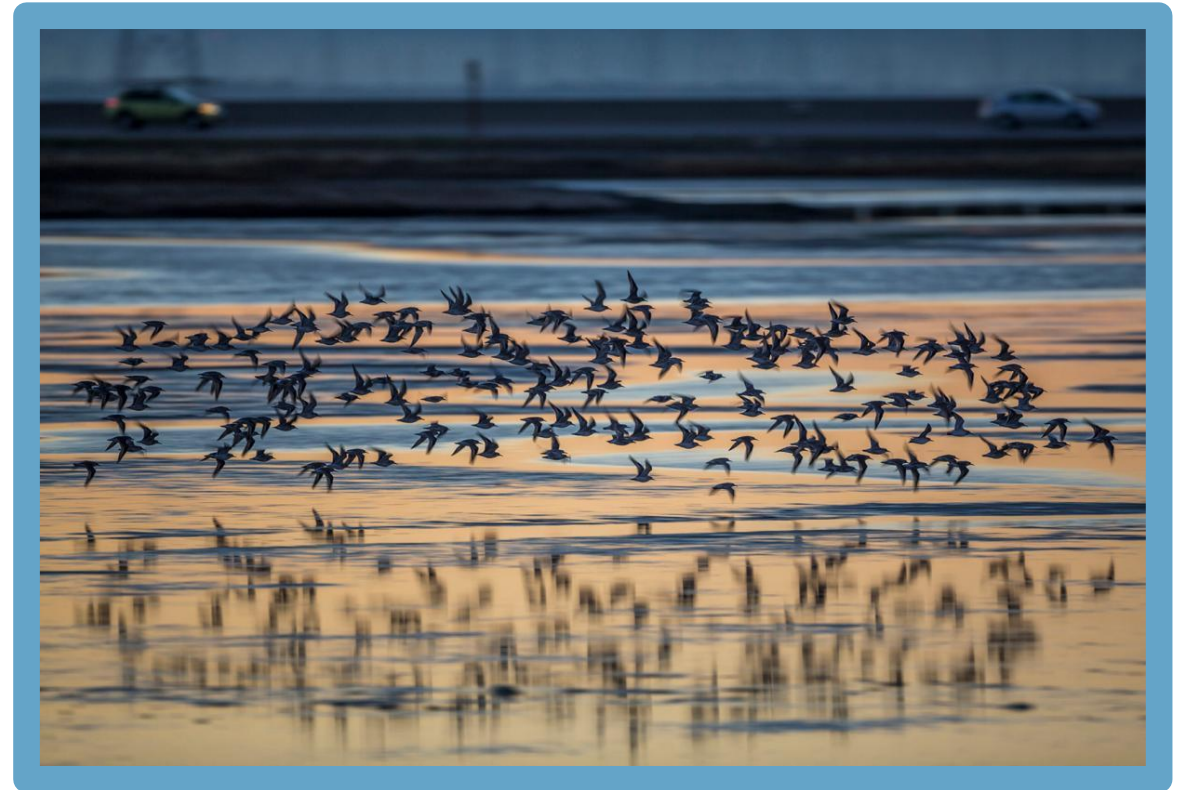


Photo: National Geographic

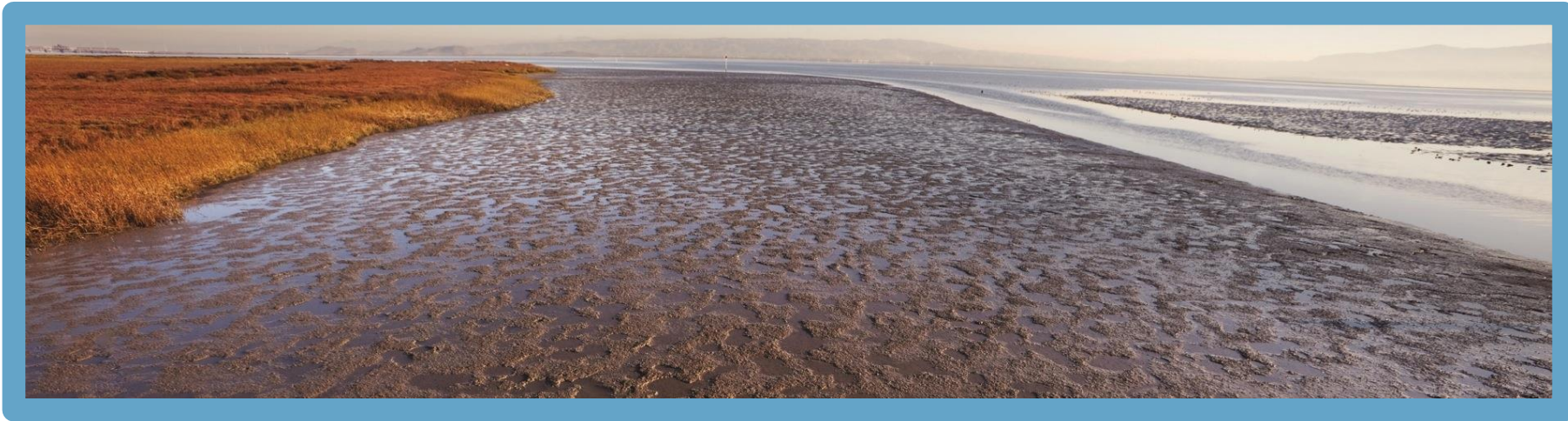
Where is “along the Shoreline”?

- **Subtidal Habitats:** Area lying below mean low tide, within a reasonable distance of the shoreline.
- **Baylands:** Areas that lie between the maximum and minimum elevations of the tides over multiyear cycles, including those areas that would be covered by the tides in the absence of levees or other unnatural structures, including the portion of creeks or rivers located below the head of tide.
- **Transitions Zones:** Uplands adjacent to potential or actual tidal wetlands that can provide transitional habitat and/or marsh migration space, as well as areas that are needed to enhance the project’s resilience to projected sea level rise.



Measure AA Eligibility:

1) Safe, Clean Water and Pollution Prevention



- Improve water quality by **reducing pollution and engaging in restoration activities**
- Reduce pollution levels through **shoreline cleanup and trash removal**
- **Restore wetlands** that provide natural filters and remove pollution
- **Restore creeks** where they flow into the Bay

Measure AA Eligibility:

2) Vital Fish, Bird and Wildlife Habitat

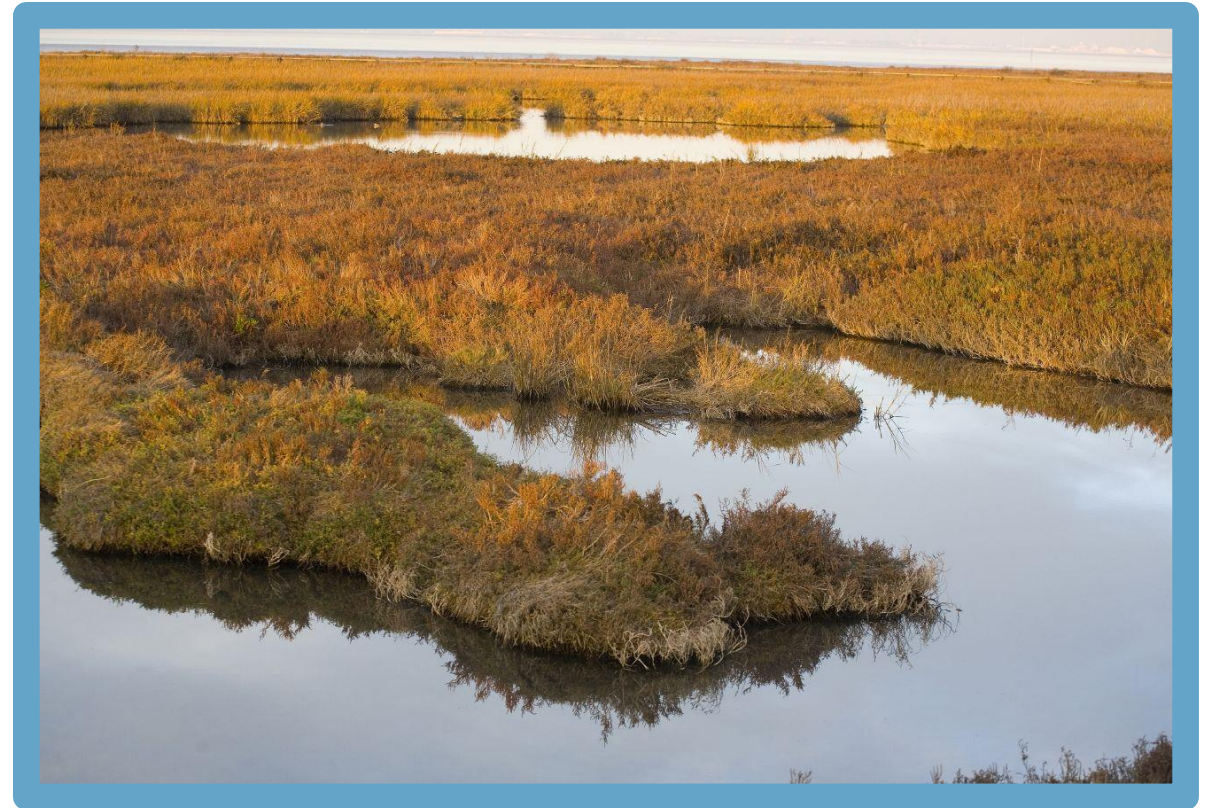
- **Enhance** the SF Bay National Wildlife Refuge, shoreline parks and open space preserves and other **public lands** for **expanded and improved habitat** for fish, birds, and mammals
- **Protect and restore wetlands and other Bay and shoreline habitats** to benefit wildlife including shorebirds, waterfowl, fish
- **Provide for stewardship, maintenance and monitoring** of habitat restoration projects to ensure ongoing benefits to wildlife and people



Measure AA Eligibility:

3) Integrated Flood Protection

- Provide nature-based flood protection through **wetland and habitat restoration**
- **Build and improve levees** that are a necessary part of wetland restoration activities to protect existing shoreline communities, agriculture and infrastructure



Measure AA Eligibility:

4) Shoreline Public Access

To provide safer and improved public access, as part of and compatible with wildlife habitat restoration projects in and around the Bay:

- **Construct new, repair existing, and/or replace deteriorating public trails, signs and related facilities** along the shoreline and manage these facilities
- **Provide interpretive materials and special outreach events** about pollution prevention, wildlife habitat, public access, and flood protection, to protect the Bay's health and **encourage community engagement**



Measure AA: Prioritization Criteria for Grant Decisions

- Greatest positive impact
- Greatest long-term impact
- Geographic distribution
- Leverage state and federal dollars
- Benefit economically disadvantaged communities
- Benefit region's economy
- Engage youth and young adults
- Incorporate monitoring, maintenance and stewardship
- Meet selection criteria of State Coastal Conservancy, SF Bay Conservation and Development Commission and SF Bay Joint Venture



Geographic Distribution of Funds

Region	Counties	Percentage
North Bay	Sonoma, Marin, Napa & Solano	9%
East Bay	Contra Costa & Alameda	18%
West Bay	San Francisco & San Mateo	11%
South Bay	Santa Clara	12%
Baywide	All 9 Counties	50%



Measure AA

- No more than 5% of the tax proceed may be used for administration. Interest and other income can supplement the 5%.
- Forms the Independent Citizens Oversight Committee



Oversight Committee: Roles of the Committee

1. Annually review the Authority's conformance with Measure AA;
2. Review the Authority's audits and expenditure and financial reports; and
3. Publish an annual report of its findings, which will be posted on the Authority's website.



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RESTORATION AUTHORITY



SFBRA Annual Report

- Authority Overview
- Chair's message
- Centering Equity
- Adapting to COVID-19
- Project Map
- Regional Updates
- Performance Measures
- Financial Summary

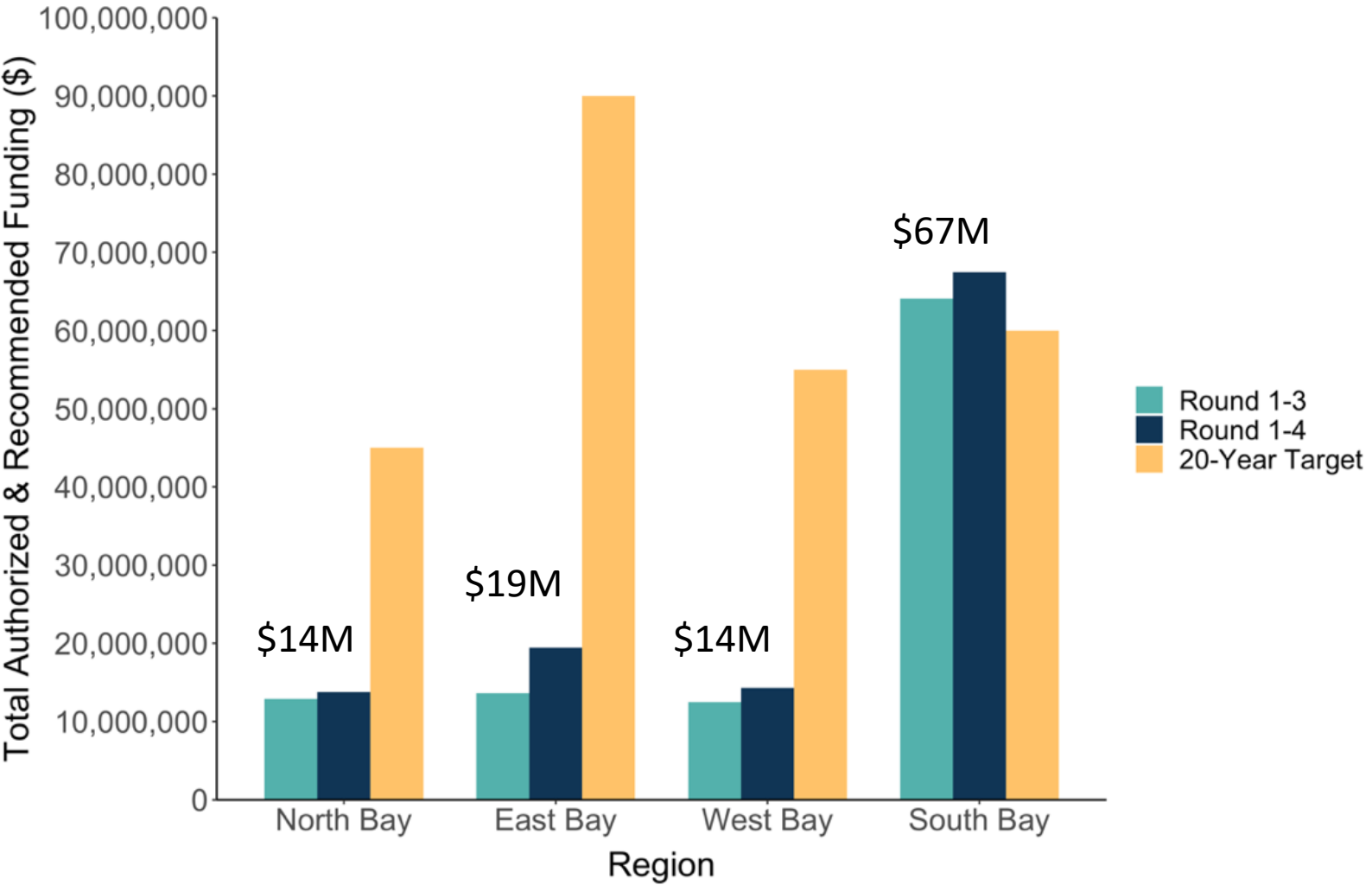


Projects Funded to Date

- 30 Projects Funded to Date
- Includes Two Community Grants
- Projects in Each Region
 - North: 11
 - East: 9
 - West: 5
 - South: 3
 - All Regions: 2 (Invasive Spartina Project and BRRIT)
- Total amount authorized through to date: \$117M



Progress Towards Geographic Distribution Targets



EXPECTED Percentage of 20-Year Target after 4 out of 20 Years: 20%

ACTUAL Percentage of 20-Year Target after 4 out of 20 Years:

- North Bay – 31%
- East Bay – 22%
- West Bay – 26%
- South Bay – >100%

Regional Opportunities

- **South Bay:** Greatest acreage of tidal marsh restoration underway, i.e., South Bay Salt Ponds Restoration Project and Shoreline Project
- **North Bay:** Greatest potential for additional tidal marsh restoration acreage through acquisitions and restoration of protected land
- **East Bay and West Bay:** Greatest opportunities for living shorelines and benefits to economically disadvantaged communities, e.g., parks, trails, jobs, internships





LIVING SHORELINES SUPPORT RESILIENT COMMUNITIES

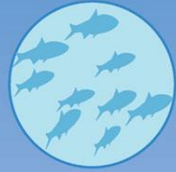
Living shorelines use plants or other natural elements—sometimes in combination with harder shoreline structures—to stabilize estuarine coasts, bays, and tributaries.



One square mile of salt marsh stores the carbon equivalent of **76,000 gal of gas** annually.



Marshes trap sediments from tidal waters, allowing them to **grow in elevation** as sea level rises.



Living shorelines improve **water quality**, provide fisheries **habitat**, increase **biodiversity**, and promote **recreation**.



Marshes and oyster reefs act as natural **barriers** to waves. **15 ft** of marsh can **absorb 50%** of incoming wave energy.



Living shorelines are **more resilient** against storms than bulkheads.



33% of shorelines in the U.S. will be **hardened** by **2100**, decreasing fisheries habitat and biodiversity.



Hard shoreline structures like **bulkheads** prevent natural marsh migration and may create seaward **erosion**.



Encinal Dune Restoration and Public Access Project \$450K: CONSTRUCTED

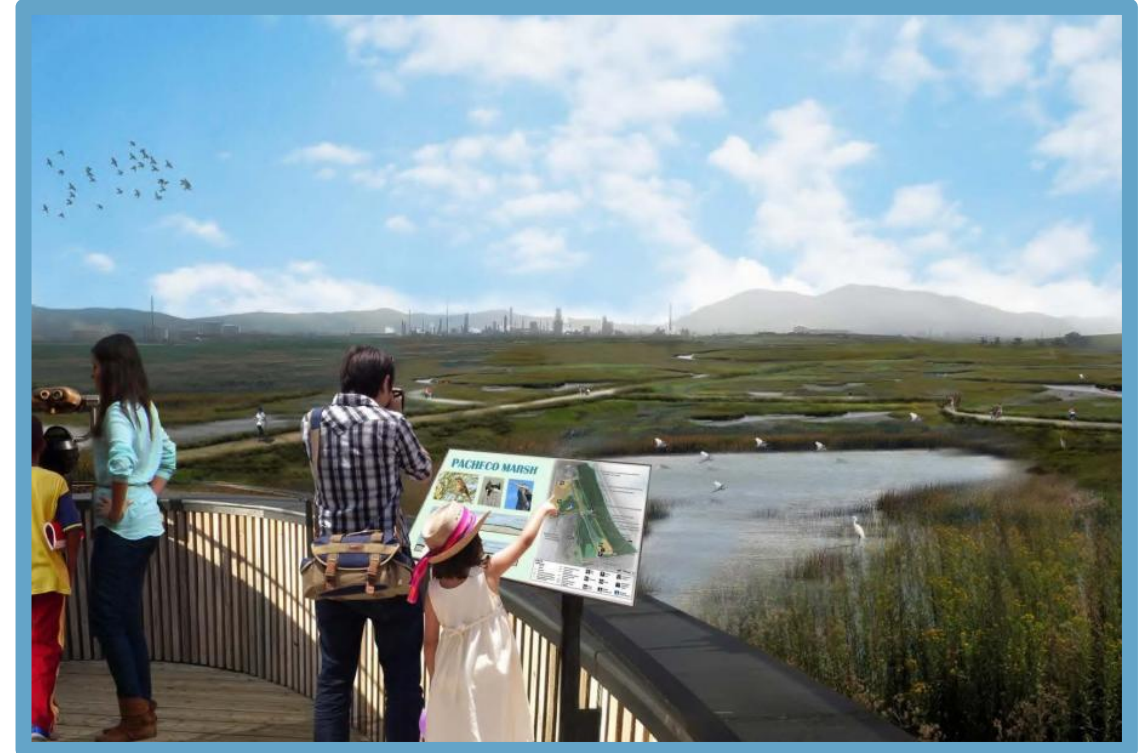
- East Bay Regional Park District
- Implementation Project in City of Alameda
- Project objectives:
 - Remove non-native vegetation.
 - Restore dune habitat.
 - Stabilize eroding shoreline.
 - Remove dilapidated barge and debris.
 - Improve water access.



Lower Walnut Creek Restoration Project \$7.9M: LEVEE BREACHED



Contra Costa County Flood Control and Water Conservation District



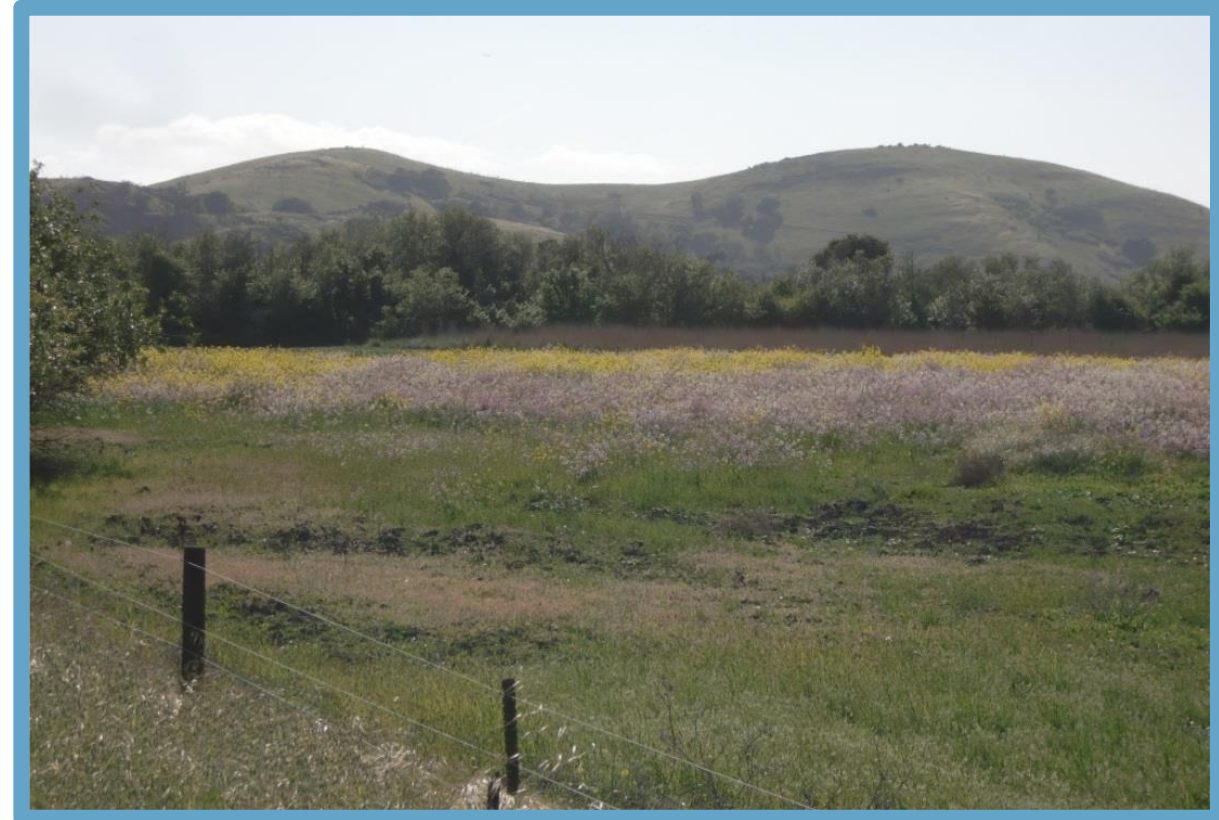
Restoring wetland habitat by breaching levees to reintroduce the tides to diked former baylands



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Coyote Hills Restoration and Public Access Project \$4M: MOVING FROM PLANNING TO IMPLEMENTATION

- East Bay Regional Park District
- Planning and Implementation Project
- Project objectives:
 - Increase the area and habitat quality of wet meadow, seasonal wetland, willow thicket and mixed riparian forest.
 - Install over 4 miles of trails, wildlife overlooks, parking, restrooms, picnic areas, and interpretive exhibits.



Terminal Four Wharf Removal Project \$2.3M: TO BE IMPLEMENTED SOON

- City of Richmond
- Implementation Project
- Project Objectives
 - Demolish derelict pilings, decking, and two buildings
 - Construct enhanced rock slope protection
- The primary ecological benefits will result from removal of the derelict structures and debris; the innovative living shoreline component of the project will provide additional habitat benefits.



Oakland Shoreline Leadership Academy

\$180K: NEARING COMPLETION

- West Oakland Environmental Indicators Project
- Community-Led Planning Project
- Project objectives:
 - Educate a cohort of local residents about environmental and social issues along the Oakland shoreline.
 - Develop shoreline restoration projects in Oakland.



San Leandro Treatment Wetland Project \$539K: PLANNING NEARING COMPLETION

- City of San Leandro
- Planning Project
 - Grantee has applied for implementation funds.
- Project objectives:
 - Prepare detailed design and permit applications for a multi-benefit treatment wetland that will remove nitrogen from treated wastewater.
 - Improve habitat value of a contaminated shoreline site.



Hayward Marsh Restoration Project \$500K

- East Bay Regional Park District
- Planning Project
- Project objectives:
 - Prepare a conceptual design and permit applications for restoration from brackish marsh to salt marsh and seasonal wetlands.
 - Plan for levee improvements and improvement of the Bay Trail which runs atop the levee to the Hayward Shoreline Interpretive Center.



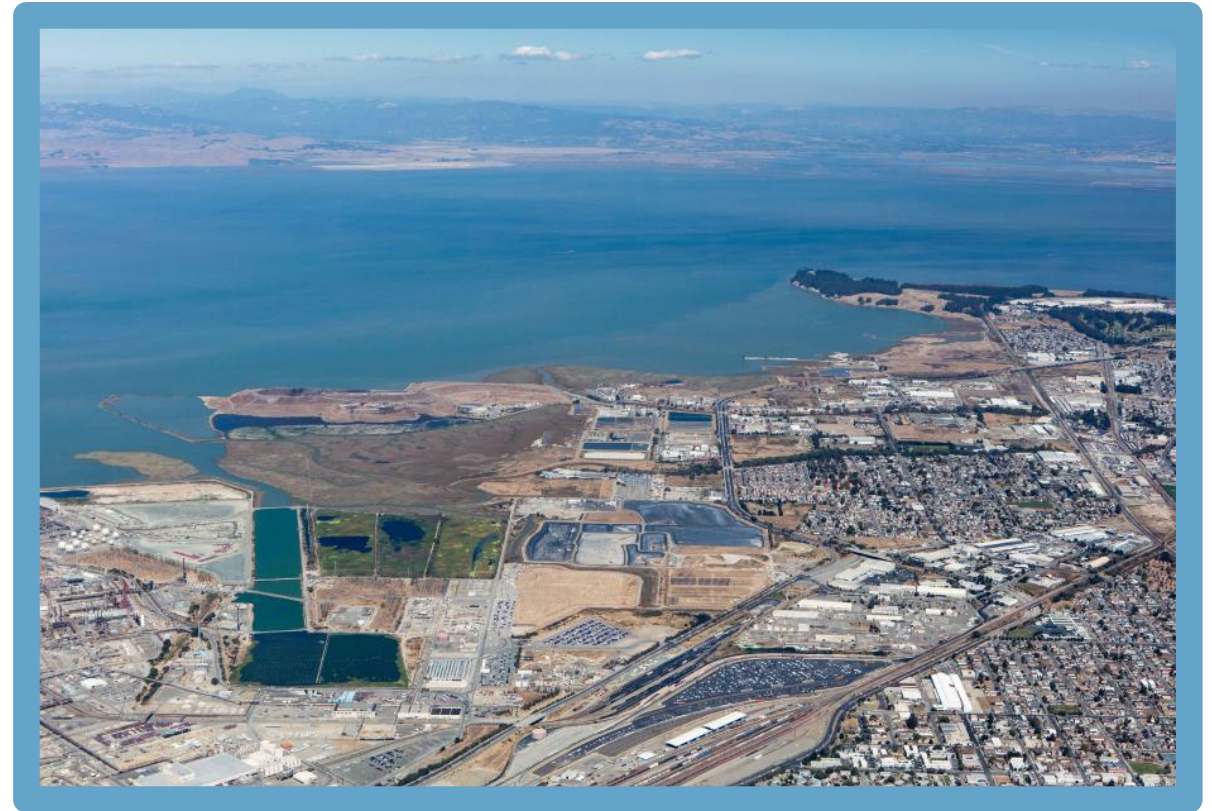
Long Beach Restoration Design Project \$515K

- City of San Leandro
- Planning Project
- Project objectives:
 - Prepare a conceptual design for restoration of an eroding sand spit that provides habitat and protects the marshes behind it.
 - Plan for restoring public access.



North Richmond Shoreline Living Levee \$645K

- West County Wastewater District
- Planning Project
- The planning objectives
 - Create transitional upland habitat,
 - Provide flood protection to critical infrastructure and neighboring disadvantaged communities
 - Improve public access to the North Richmond Shoreline in western Contra Costa County.



2021-2022 Grant Round

- **Application Period:** July 8 – Oct 7, 2021
 - Pre-application and consultation strongly encouraged
 - Email grants@sfbayrestore.org
- **Award Dates:** Starting in Spring 2022
- **Funding Available:** Up to \$12 million
- **More Information:**
<https://www.sfbayrestore.org/restoration-authority-grants>



2021-2022 Grant Round: Berkeley-Related Applications

- **City of Berkeley:** The West Berkeley Aquatic Park Urban Estuarine Habitat Restoration and Community Engagement Project
- **East Bay Regional Park District:** McLaughlin Eastshore State Park – Berkeley North Basin Project
- **San Francisco Estuary Institute:** Regionally Advancing Living Shorelines in SF Bay
 - Includes three Berkeley sites



2021-2022 Community Grants Program



- **Application:** April 2021 release
 - Initial and revised applications accepted on rolling basis
 - Email grants@sfbayrestore.org
- **Award Dates:** rolling basis
- **Funding Available:** up to \$100k per project
- **More Information:**
<https://www.sfbayrestore.org/community-grants>
- **Two East Bay projects coming soon!**



Eligible Projects for Community Grants

- **Community visioning** led by community-based organizations in economically disadvantaged communities (EDCs)
- **Training** for EDC leaders to develop, apply for, and implement small shoreline habitat projects
- Supporting community-based organizations in EDCs in **gaining knowledge** of shoreline issues and **building relationships** with government agencies and nonprofits
- **Implementing** shoreline habitat projects with strong community benefits



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Photo: Linda
Tong

Website Resources: sfbayrestore.org

- Governing Board, Advisory Committee, Oversight Committee
- Resources: 1) Publications, 2) Financial Statements, Budgets, Workplans
- Current Projects Page
 - Map of Funded Projects
 - Project Summary and Media
 - Staff Recommendation (linked at the bottom of each project page).



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Thank you!

www.sfbayrestore.org